

	<b>COATING OR PLASTIC COMPOSITIONS</b>	8	..Fat, fatty oil, fatty oil acid or salt thereof containing
1.05	..Metal-depositing composition or substrate-sensitizing compositions for metal-depositing compositions	9	...Fatty oil
1.11	..Sensitizing composition	10	..Wax, bituminous material or tarry residue containing
1.12	..Metal-depositing composition contains mixtures of elemental metal and a metal compound other than solely as a Group IA metal compound	11	..Hydrocarbon containing
1.13	...Elemental metal is Group IB (Cu, Ag, Au)	12	.Saturating or indurating
1.14	....Elemental metal is Ag	13	.Fog, frost or ice preventive
1.15	...Elemental metal is noble metal of Group VIII (Ru, Rh, Pd, Os, Ir, Pt)	14.05	.Corrosion inhibiting coating composition
1.16	...Elemental metal is Group IIB (Zn, Cd, Hg) metal	14.11	..Contains water
1.17	....Elemental metal is Zn	14.12	...Phosphorus material
1.18	..Metal-depositing composition contains elemental metal of Group IB (Cu, Ag, Au)	14.13	...Carboxylic acid, ester, alcohol or sulfur or metal derivative
1.19	...Elemental metal is Ag	14.14	...Inorganic material other than water
1.21	..Metal composition contains elemental noble metal of Group VIII (Ru, Rh, Pd, Os, Ir, Pt)	14.15	...Organic nitrogen-containing material, e.g., amine, amide, etc.
1.22	..Metal-depositing composition contains mixtures of metal compounds other than solely as Group IA metal compounds, e.g., electroless	14.16	...Heterocyclic nitrogen-containing material
1.23	...At least one metal is a Group IB (Cu, Ag, Au) metal	14.17	....Inorganic material other than water
1.24	...At least one metal is a noble metal of a Group VIII (Ru, Rh, Pd, Os, Ir, Pt) metal	14.18	....Amine salt of carboxylic acid
1.25	..Metal-depositing composition contains polyvalent metal compound	14.21	...Inorganic material or elemental component thereof, e.g., S, metal, etc.
1.26	...Group IB (Cu, Au) metal	14.22	..Contains animal, vegetable, fish oil or a fraction or derivative thereof
1.27	...Group VIII metal	14.23	...Carboxylic acid, ester, alcohol or metal or sulfur or amine or amide derivative thereof
1.28	....Group VIII noble metal (Ru, Rh, Pd, Os, Ir, Pt)	14.24	...Carboxylic acid, ester, or amine or amide derivative
1.29	...Group IIB (Zn, Cd, Hg) metal	14.25	...Inorganic material or elemental component thereof
2	.Coating repellent	14.26	..Contains petroleum oil or a fraction thereof
3	.Polishes	14.27	...Carboxylic acid, ester, alcohol or sulfur or metal derivative thereof
4	..Protein or derivative containing	14.28	....Metal salt of carboxylic acid
5	..Carbohydrate or derivative containing	14.29	....Metal salt of sulfonic acid
6	..Natural resin or derivative containing	14.31	...Organic nitrogen-containing material, e.g., amine, amide, etc.
7	...With fatty oil	14.33	...Inorganic material or elemental component thereof, e.g., S, metal, etc.

14.34	..Contains wax, bitumen, asphalt, gum, natural resin, varnish, lacquer, or paint	18.23	...Elemental sulfur or sulfur-containing organic compound
14.35	...Carboxylic acid, ester, alcohol or sulfur or metal derivative	18.24	...Halogen-containing organic compound
14.36	....Metal salt of carboxylic acid	18.25	....With at least one inorganic material which is other than water
14.37	...Organic nitrogen-containing material	18.26	...Metal-containing material
14.38	...Organic sulfur-containing material	18.27	....Group IIB metal atom (Zn, Cd, Hg)
14.39	...Inorganic material or elemental component thereof	18.28	....Group VA metal atom (As, Sb, Bi)
14.41	..Contains mixture of at least two organic compounds	18.29	..Wax containing
14.42	...Organic nitrogen-containing material	18.3	..Boron containing
14.43	...Organic sulfur-containing material	18.31	..Phosphorus containing
14.44	..Contains mixture of organic material and at least one inorganic material or elemental component thereof	18.32	..Nitrogen-containing compound
14.45	...Elemental S or inorganic sulfur-containing compound	18.33	...Nitrogen compound contains a sulfur atom
14.5	..Hectographic or copying	18.34	..Elemental sulfur or sulfur-containing organic compound
15.05	..Contains fireproofing or biocidal agent	18.35	..Halogen-containing organic compound
16	..Natural resin or derivative containing	18.36	..Group IIB metal containing (Zn, Cd, Hg)
17	...With fat, fatty oil, fatty oil acid or salt thereof	31.01	..Marking
18	..Fat, fatty oil, fatty oil acid or salt thereof containing	31.02	..Odor masked, odor reduced, or perfumed
18.11	..Contains fireproofing agent	31.03	..Composition for marking live animal or plant, or for marking animal derived products (e.g., animal skins, etc.)
18.12	...Silicon containing	31.04	..Reflecting composition for marking pavement or sign
18.13	...Boron containing	31.05	..Composition for marking an inorganic settable or ceramic object (e.g., for marking cement or glass, etc.)
18.14	...Phosphorus containing	31.06	..Composition for marking metal or metal product
18.15	....Nitrogen-containing phosphorus compound	31.07	..Indelible crayon
18.16	....Inorganic compound contains a phosphorus and a nitrogen atom	31.08	...Wax containing
18.17	.....Contains phosphorus directly bonded to nitrogen	31.09	..Erasable crayon (i.e., washable or removable crayon)
18.18	....Phosphorus compound is organic	31.1	...Wax containing
18.19	....Phosphorus compound which is organic contains halogen	31.11	..Pencil leads
18.2	....With halogen-containing compound	31.12	...Wax containing
18.21	...Nitrogen-containing organic compound	31.13	..Inks
18.22	....Nitrogen compound contains a sulfur atom	31.14	...Invisible
		31.15	....Fluorescent
		31.16	....Chromogenic (i.e., color formation by reaction of color former with color developer)

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| 31.17 | .....Specified developer (i.e., electron acceptor)  | 31.44 | .....Anthraquinone attached directly or indirectly to the nitrogen by nonionic bonding                                      |
| 31.18 | .....Phenolic hydroxy compound as the developer   | 31.45 | .....The nitrogen is part of a cyano group  |
| 31.19 | .....With specified color former  | 31.46 | .....The nitrogen is a ring member of a heterocyclic ring   |
| 31.2  | .....Specified color former (i.e., electron donating)   | 31.47 | .....Six-ring members in the heterocyclic ring  |
| 31.21 | .....The color former contains a heterocyclic oxygen ring   | 31.48 | .....Acyclic azo attached directly or indirectly to the heterocyclic ring by nonionic bonding                               |
| 31.22 | .....Fluoran or derivative containing   | 31.49 | .....Five-ring members in the heterocyclic ring   |
| 31.23 | ....Erasable composition  | 31.5  | .....Acyclic azo attached directly or indirectly to the heterocyclic ring by nonionic bonding                               |
| 31.24 | ....Protein, carbohydrate, or wax containing  | 31.51 | .....The nitrogen is part of an acyclic azo group   |
| 31.25 | ...Emulsion   | 31.52 | .....Plural acyclic azo group component containing  |
| 31.26 | ....Water in oil  | 31.53 | .....Protein or derivative containing   |
| 31.27 | ...Organic dye containing   | 31.54 | .....Gelatin, glue, or derivative containing  |
| 31.28 | ....With pigment  | 31.55 | .....Casein or derivative containing  |
| 31.29 | ....Hot melt type or wax containing   | 31.56 | .....Seed or derivative thereof containing (e.g., nuts, beans, zein, grain, rice, corn, wheat, oats, gluten, soybean, etc.) |
| 31.3  | .....Petroleum derivative containing (e.g., paraffin or microcrystalline wax, etc.)                                     | 31.57 | ....Specified vehicle, solvent, or dispersing medium containing   |
| 31.31 | .....Natural wax containing (e.g., carnauba, montan, Japan, candelilla, etc.)   | 31.58 | .....Organic oxygen compound containing   |
| 31.32 | ....Erasable, purified, correctable, fugitive, indicator, conductive, fluorescent, chromogenic, or magnetic composition | 31.59 | ....Specified surfactant containing   |
| 31.33 | ....Specified particle size or coated particle containing   | 31.6  | ...Pigment containing   |
| 31.34 | ....Fat, fatty oil, fatty acid, or derivative thereof containing  | 31.61 | ....Hot, melt type, or wax containing   |
| 31.35 | .....Fatty acid or derivative containing  | 31.62 | .....Petroleum derivative containing (e.g., paraffin or microcrystalline wax, etc.)   |
| 31.36 | ....Carbohydrate or derivative containing   | 31.63 | .....Natural wax containing (e.g., carnauba, montan, Japan, candelilla, etc.)   |
| 31.37 | .....Cellulose or derivative containing   | 31.64 | ....Erasable, purified, correctable, fugitive, indicator, conductive, fluorescent, chromogenic, or magnetic composition     |
| 31.38 | .....Carbohydrate gum containing  |       |   |
| 31.39 | .....Starch containing  |       |   |
| 31.4  | ....Natural resin or derivative containing  |       |   |
| 31.41 | .....Resin or derivative containing   |       |   |
| 31.42 | .....Shellac or derivative containing   |       |   |
| 31.43 | ....Organic nitrogen compound containing  |       |   |

31.65	....Specified particle size or coated particle containing	31.92	...Electrically conductive or magnetic compositions (e.g., electrically sensitive, electrochemical, electrolytic, etc.)
31.66	.....Fat, fatty oil, fatty acid, or derivative thereof containing	31.93	..Felt tip or correction composition
31.67	.....Fatty acid or derivative containing	31.94	..Carbohydrate, protein, or derivative containing
31.68	....Carbohydrate or derivative containing	31.95	..Glass, glass derivative, carbon, or free metal containing
31.69	.....Cellulose or derivative containing	31.96	..Natural resin or derivative thereof containing
31.7	.....Carbohydrate gum containing	31.97	..Organic nitrogen compound or organic sulfur compound containing
31.71	.....Starch containing	32.5	.Erasable surface
31.72	....Natural resin or derivative containing	33	.Leak stopping
31.73	.....Rosin or derivative containing	34	.Stains
31.74	.....Shellac or derivative containing	35	.Dental
31.75	....Organic nitrogen compound containing	36	.Tractive or friction surface
31.76	.....The nitrogen is a ring member of a heterocyclic ring	37	.Sound recording
31.77	.....Six-ring members in the heterocyclic ring	38	.Shoe filling
31.78	.....Five-ring members in the heterocyclic ring	38.2	.Molds and mold coating compositions
31.79	.....Acyclic azo attached directly or indirectly to the heterocyclic ring by nonionic bonding	38.22	..Compositions for coating and lining molds
31.8	.....The nitrogen is part of an acyclic azo group	38.23	...Carbohydrate or derivative containing
31.81	.....Plural acyclic azo group component containing	38.24	...Fat, fatty oil, fatty oil acid or salt thereof containing
31.82	.....Protein or derivative containing	38.25	...Wax, bituminous or resinous material or tarry residue containing
31.83	.....Gelatin, glue, or derivative containing	38.27	...Inorganic materials only
31.84	.....Casein or derivative containing	38.28	...Elemental carbon containing
31.85	....Specified vehicle, solvent, or dispersing medium containing	38.3	..Alkali metal silicate or inorganic settable ingredient containing
31.86	.....Organic oxygen compound containing	38.35	...With organic material
31.87	.....Organic sulfur compound containing	38.4	..Protein or derivative containing
31.88	.....Hydrocarbon compound containing	38.51	..Carbohydrate or derivative containing
31.89	....Specified surfactant containing	38.6	..Natural resin or derivative containing
31.9	....The pigment is inorganic	38.7	..Fat, fatty oil, fatty oil acid or salt thereof containing
31.91	...Bituminous material or tarry residue containing	38.8	..Wax, bituminous material or tarry residue containing
		38.9	..Inorganic materials only
		600	.Alkali metal silicate containing
		601	..Pore forming or product thereof

602	...Perlite, slag, ash or ceramic material	631	..Perlite, rock, stone, shale, slate, flint, granite, feldspar or limestone containing
603	...Organic material containing	632	..Clay containing
604	...Process employing steam, electrical, magnetic or wave energy or product thereof or specified particle size or shape	633	..Soil or diatomaceous earth containing, or material for treating soil or earth (e.g., soil stabilization, etc.)
605	..Hollow, foam, cellular or porous materials containing	634	..Organic material containing
606	..Portland type cement containing	635	..Zirconium, titanium, zinc, lead, iron, or tin compound containing (Zr, Ti, Zn, Pb, Fe, Sn)
607	..Soil, diatomaceous earth or clay containing or material for treating soil or earth, (e.g., soil stabilization, etc.)	636	..Particle size specified
608	...Organic material containing	637	..Fluorine containing
609	....Carbohydrate containing	638	..Inorganic settable ingredient containing
610	..Natural resin containing (e.g., rosin, shellac, turpentine, tall oil, etc.)	639	..For use underwater
611	..Calcium sulfate containing	640	..Free metal or alloy containing (e.g., dust, powder, etc.)
612	..Lime containing	641	...Aluminum
613	...Organic material containing	642	....Organic material containing
614	..Protein containing	643	...Iron or steel
615	...Carbohydrate containing	644	....Fiber bar or wire containing
616	...With other organic material	645	..Protein containing (e.g., glue, gelatine, albumin, blood, etc.)
617	..Carbohydrate containing	646	...Hollow, foam, cellular or porous material
618	...Cellulose	647	...Soil, diatomaceous earth, clay, rock, stone, granite, flint, slate, shale, or material for treating soil or earth (e.g., soil stabilization, etc.)
619	....Wood, paper, or paper pulp	648	....With organic material other than protein
620	..Higher fatty acid or ester, amide or salt thereof containing	649	...Cereal grain or derived therefrom or vegetable flour or meal (e.g., gluten, corn flour, rice, rye, etc.)
621	...With other organic material or asbestos	650	...Calcium sulfate containing
622	..Wax, paraffin, oil shale, or bituminous material containing (e.g., asphalt, pitch, tar, etc.)	651	....With organic material other than protein
623	..Free metal or alloy containing	652	....Carbohydrate
624	..Ash, slag, slag wool, rock wool, mineral wool, asbestos, or organic garbage or sewage material containing	653	.....Plant or vegetable fiber (e.g., wood, sawdust, etc.)
625	...Asbestos containing	654	...Portland type cement, slag, talc, mica, asbestos, ash, or alum containing
626	..Mica, elemental carbon, zeolite or talc containing	655	...With organic material other than protein
627	..Sulfur containing (e.g., alum, etc.)	656	....Carbohydrate
628	..Boron containing		
629	..Phosphorus containing		
630	...Organic material containing		

657	..Natural resin containing (e.g., shellac, turpentine, balsam, copal, etc.)	681	...Soil, diatomaceous earth, clay, shale, slate or rock material containing or material for treating soil or earth (e.g., soil stabilization, etc.)
658	...Calcium sulfate, aluminous or oxy salt type cement	682	...Physical introduction of gas (e.g., by mixing, agitation, injection, whipping, etc.)
659	...Rosin or tall oil (e.g., colophony, etc.)	683	..Oxy salt type cement
660	..Wax containing (e.g., petroleum wax, beeswax, montan wax, carnauba wax, spermaceti, etc.)	684	...Soil, diatomaceous earth, clay, slate or shale containing or material for treating soil or earth (e.g., soil stabilization, etc.)
661	..Higher fatty acid or ester, amide or salt thereof containing (e.g., fish oil, vegetable oil, soap, etc.)	685	...Magnesium oxy-chloride (e.g., Sorel cement, etc.)
662	...Soil, diatomaceous earth, shale, slate or clay, containing, or material for treating soil or earth (e.g., soil stabilization, etc.)	686	....Organic material containing
663	...Linseed oil or tallow containing	687	....Carbohydrate (e.g., cellulose, etc.)
664	...Portland type cement containing	688	....Specified filler, dye or pigment (e.g., silica, feldspar, carbon, talc, asbestos, slag, mineral wool, etc.)
665	...With other organic material	689	...Organic material or specified filler
666	...Stearic acid or derivative	690	..Phosphate based cement
667	...Lime containing	691	...Specified filler or organic material containing
668	..Bituminous material or tarry residue, pitch, or coal containing	692	..Aluminous cement (e.g., high alumina, calcium aluminate, etc.)
669	...Soil, diatomaceous earth, or clay, containing, or material for treating soil or earth (e.g., soil stabilization, etc.)	693	...Cement clinker preparation
670	...Calcium sulfate containing	694	...Soil, diatomaceous earth, clay, shale, slate, or rock-type material containing or material for treating soil or earth (e.g., soil stabilization, etc.)
671	...With other organic material	695	...With other cement material (e.g., Portland, calcium sulfate, etc.)
672	..Hollow, foam, cellular or porous material containing or method of forming cellular or porous product	696	...Organic material containing
673	...Peroxide or hypochlorite containing	697	..Organic garbage, refuse sewage, or waste material containing or treating (other than sulfite waste liquor)
674	...Carbohydrate containing	698	..Perlite containing
675	...Perlite or vermiculite containing (e.g., jeffersite, etc.)	699	..Asbestos containing (e.g., amosite, chrysotile, etc.)
676	...Glass containing	700	...Slag, ash or organic material containing
677	...Organic material containing	701	....Calcium sulfate containing (e.g., gypsum, plaster of Paris, anhydrite, etc.)
678	....Organic sulfur or organic phosphorus		
679	...Slag, cinder or ash containing		
680	...Calcium sulfate containing (e.g., anhydrite, plaster of Paris, gypsum, etc.)		

702	...Soil, diatomaceous earth, clay, slate, shale or rock containing or material for treating soil or earth (e.g., soil stabilization, etc.)	727	....Organic nitrogen compound
703	...Portland type cement	728	....Carboxylic acid, ester or salt thereof
704	...Lime containing	729	....Carbohydrate
705	..Ash containing (e.g., fly ash, volcanic ash, coal ash, etc.)	730	.....Starch, dextran, cellulose ether or gum
706	...Soil, diatomaceous earth, clay, shale, slate or rock containing or material for treating soil or earth (e.g., soil stabilization, etc.)	731	.....Plant material (e.g., vegetable fiber, wood, etc.)
707	...With slag, coke, cinder, stack dust, kiln dust or flue dust	732	...Calcium sulfate specified (e.g., gypsum, anhydrite, plaster of Paris, etc.)
708	...Organic material containing	733	...Titanium, vanadium, chromium, molybdenum, tungsten, manganese, iron, copper, zinc, tin or lead compound containing (Ti, V, Cr, Mo, W, Mn, Fe, Cu, Zn, Sn, Pb)
709	...Portland type cement	734	...Halogen containing (F, Cl, Br, I)
710	...With additional lime	735	...Calcium sulfate specified (e.g., gypsum, anhydrite, plaster of Paris, etc.)
711	..Mineral fibers or glass fibers containing (e.g., slag wool, cotton wool, mineral wool, rock wool, etc.)	736	...Sulfur containing (e.g., alum, etc.)
712	..Color additive (other than whitener)	737	...Silica containing (e.g., sand, quartz, etc.)
713	..Portland type cement	738	...Rock, gravel, stone or carbonate containing (e.g., limestone, dolomite, etc.)
714	...Slag containing (e.g., blast furnace slag, etc.)	739	...Portland type cement per se (e.g., clinker preparation, etc.)
715	....Calcium sulfate specified (e.g., gypsum, anhydrite, plaster of Paris, etc.)	740	....Process involving spray drying, atomizing of solid material, steam, nonatmospheric pressure, cleaning step or avoiding contamination of equipment
716	...With mica, talc, cinder, glass, vermiculite, coke breeze or kiln dust	741	....Color control or modification (e.g., steps to produce white cement, etc.)
717	...Boron, elemental carbon or phosphorus containing	742	.....Cooling in reducing atmosphere
718	...Soil, diatomaceous earth, clay, slate or shale, containing or material for treating soil or earth (e.g., soil stabilization, etc.)	743	...Control of a parameter of operation in response to a measurement or test or to vary a result in a process
719	....Organic material containing	744	....Employment of a fluidized bed
720	.....Carbohydrate	745	....Waste material employed as raw material or fuel (not kiln dust)
721	....Silica or lime added	746	....Electrical, magnetic or wave energy employed (e.g., electric arc, etc.)
722	....Calcium sulfate specified (e.g., gypsum, anhydrite, plaster of Paris, etc.)		
723	...Process involving steam, electrical, magnetic or wave energy, vibration or vacuum or product thereof		
724	...Organic material containing		
725	....Organic sulfur compound		
726	.....Cellulose or silica containing (e.g., sand, etc.)		

747	....Use of heat transmitting or conducting solid material for cooling solid material from gas or for modifying temperature of solid material	765	....Calcium sulfate containing raw material
748	....Aftertreatment of clinker	766	....Phosphorus, boron, chromium, molybdenum, vanadium, or nickel containing raw material (P, B, Cr, Mo, V, Ni)
749	.....Refire or recalcine clinker	767	....Slag containing raw material
750	.....Specified cooling (e.g., recycling heated coolant, etc.)	768	....Potassium, halogen or sulfur containing raw material (K, F, Cl, Br, I, S)
751	....Involving kiln dust (e.g., recovery, treatment, processing thereof or product, etc.)	769	....Iron or manganese containing raw material (Fe, Mn)
752	....Treatment or removal of alkali, sulfurous or chloride impurities from raw material or fuel	770	....Slurry employed
753	....Agglomerate, pellet, molded or shaped form of raw material	771	....Preprocessing or processing of raw material before firing (e.g., preheating, etc.)
754	.....Sheet, film, layered, brick, briquette, block, fiber, strand, cake or egg shape	772	..Calcium sulfate (e.g., gypsum, anhydrite, plaster of Paris, etc.)
755	.....Fuel containing	773	...Soil, diatomaceous earth, clay, slate or shale, containing or material for treating soil or earth (e.g., soil stabilization, etc.)
756	....Classifying, sorting, separating, screening, sizing, grading or subdividing solid material (e.g., centrifugal separation, flotation, etc.)	774	....Organic material containing
757	....Comminuting or grinding, other than nominal, of raw material or fuel (e.g., to desired size or relative sizes, etc.) or recited particle of specified size	775	...Anhydrous calcium sulfate (e.g., anhydrite, etc.)
758	....Raw material and fuel premixed or specified fuel	776	....Organic material or slag containing
759	....Flow of gases to produce turbulence (e.g., spiral, helical, Venturi, centrifugal, etc.)	777	....Keene's cement
760	....Shape, angle, intensity or condition of fuel or flame specified (e.g., jet, oscillating, plural streams, spray, temperature, etc.)	778	...With organic material
761	....Recycling exhaust gas, reusing heat from process, or purifying exhaust gas	779	....Carbohydrate
762	.....Processing of exhaust gas prior to recycling (e.g., purifying, separating constituents, etc.)	780	....Cellulose (e.g., wood, cork, bark, etc.)
763	....Ash containing raw material	781	....Silicon, sulfur, nitrogen or phosphorus containing organic material
764	....Organic material or sea shell containing raw material	782	...Slag, cinder, mica, talc, glass, boron or elemental carbon containing
		783	...Layered or coated material, nominal molding or shaping, or other physical process (e.g., steam, electrical, magnetic or wave energy, manipulative steps, etc.)
		784	...Particle size specified
		785	...Stabilizer, retarder, or setting agent specified
		786	...By-product gypsum (e.g., phosphogypsum, etc.)
		787	...Alum or halogen containing
		788	...Silica containing (e.g., sand, quartz, etc.)
		789	..Slag



790	...Organic material, soil, diatomaceous earth, clay, slate, shale, or rock type material containing or material for treating soil or earth (e.g., soil stabilization, etc.)	815	..Boron, sulfur, or halogen containing (e.g., alum, etc.)
791	...Lime containing	816	..Particle size specified
792	..Lime	817	..Rock, stone, gravel, trass, shell or carbonate containing (e.g., limestone, etc.)
793	...Soil, diatomaceous earth, clay, slate or shale, containing or material for treating soil or earth (e.g., soil stabilization, etc.)	818	..Process involving a temperature of zero degrees C. or below
794	....Organic material or halogen containing	122	.Pore forming
795	...Organic material containing	123.11	.Cellulose liberation waste liquor, solid, or reaction product thereof containing (e.g., black liquor, sulfite yeast liquor, neutralized sulfite liquor, etc.)
796	...Silica-lime mixtures	123.12	..With proteinaceous material or carbohydrate from an external source
797	....Fiber containing or step of molding or shaping of material	123.13	..With bituminous or tarry residue, naturally occurring wax, or organic compound containing oxygen
798	....Iron, sulfur or aluminum containing (e.g., alum, etc.)	124.1	.Proteinaceous material containing
799	...Aluminum or sulfur containing (e.g., alum, etc.)	124.2	..Milk
800	...Magnesium compound containing (e.g., quicklime, dolomite, talc, etc.)	124.3	..Chemically modified tissue derived from multicellular animal of indeterminate structure (e.g., hydrolyzed, etc.)
801	..Magnesium compound (e.g., vermiculite, talc, soapstone, dolomite, etc.)	124.4	..Tissue derived from multicellular animal (e.g., connective tissue, muscle, organ, tendon, etc.)
802	..Organic material containing	124.5	...Blood or blood plasma
803	...Soil, diatomaceous earth, clay, slate or shale containing, or material for treating soil or earth (e.g., soil stabilization, etc.)	124.51	....With carbohydrate from an external source
804	...Carbohydrate containing	124.6	...Hide
805	....Cellulose or plant material	124.61	....With carbohydrate from an external source
806	...Organic silicon, organic boron or organic phosphorus	124.62	....With natural resin or derivative, lanolin, lecithin, fat, or fatty oil
807	...Mineral oil or hydrocarbon oil	124.7	...Feather, scale, horn, hoof, claw, ivory, or bone
808	...Organic nitrogen	124.8	...Hair or fur
809	...Organic sulfur	124.81	....With carbohydrate from an external source
810	...Organic acid or derivative	124.82	....With natural resin or derivative, lanolin, lecithin, fat, or fatty oil
811	..Soil, diatomaceous earth, clay, slate or shale containing, or material for treating soil or earth (e.g., soil stabilization, etc.)	124.83	....With bituminous or tarry residue, hydrocarbon, or naturally occurring wax
812	..With added silica (e.g., sand, etc.)		
813	..Synthetic zeolite or so-called mineral polymer containing		
814	..Mica, cinder, glass or elemental carbon containing		

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| 125.1 | ...Seed or tuber material (e.g., whole grains, rice flour, wheat flour, cornmeal, etc.)        | 137.7  | .....With nonproteinaceous organic compound containing oxygen except wax  |
| 126.1 | ...With carbohydrate from an external source   | 137.71 | .....The oxygen is part of a - C(=O)O- group  |
| 126.2 | ....Lignocellulosic material (e.g., flock, sawdust, wood, etc.)                                | 138.1  | ....Cellulose xanthate or viscose or cuprammonium cellulose   |
| 126.3 | ....Carbohydrate gum or cellulosic material  | 139.1  | ....Cellulose ester or salt thereof   |
| 127.1 | ...With nonproteinaceous hetero ring compound  | 139.2  | .....With nonproteinaceous organic compound containing sulfur or nitrogen   |
| 128.1 | ...With nonproteinaceous phosphorus or boron compound or organic compound containing silicon   | 139.3  | .....With nonproteinaceous organic compound containing oxygen except wax  |
| 129.1 | ...With natural resin or derivative  | 140.1  | ....Cellulose ether or salt thereof   |
| 130.1 | ...With terpene or derivative (e.g., pine oil, clove oil, spirits of turpentine, etc.)         | 140.2  | ....With natural resin or derivative  |
| 131.1 | ...With nonproteinaceous organic compound containing sulfur or nitrogen                        | 140.3  | ....With nonproteinaceous organic compound containing oxygen except wax   |
| 132.1 | ...With nonproteinaceous organic compound containing oxygen except wax                         | 141.1  | ....With nonproteinaceous noncarbohydrate hetero ring compound  |
| 132.2 | ....The oxygen is part of a - C(=O)O- group  | 142.1  | ....With nonproteinaceous organic compound containing sulfur or nitrogen  |
| 133.1 | ...With bituminous or tarry residue, hydrocarbon, or naturally occurring wax                   | 143.1  | ....With nonproteinaceous organic compound containing oxygen except wax   |
| 134.1 | ...With element or inorganic compound except water   | 144.1  | ...Dextrin or derivative, carbohydrate gum or derivative (e.g., arabic, tragacanth, guar, karaya, agar agar, algin, irish moss, etc.) |
| 134.2 | ....Elemental silicon or inorganic silicon compound  | 144.2  | ....With nonproteinaceous phosphorus or boron compound or organic compound containing silicon   |
| 135.1 | ...With carbohydrate or derivative   | 144.3  | ....With natural resin or derivative  |
| 136.1 | ...Cellulosic material   | 144.4  | ....With lanolin, fat, or fatty oil   |
| 137.1 | ....Lignocellulosic material (e.g., flock, sawdust, wood, etc.)                                | 144.5  | ....With terpene or derivative  |
| 137.2 | .....Cork or peat  | 144.6  | ....With nonproteinaceous organic compound containing sulfur or nitrogen  |
| 137.3 | .....With nonproteinaceous noncarbohydrate hetero ring compound                                | 144.7  | ....With nonproteinaceous organic compound containing oxygen except wax   |
| 137.4 | .....With nonproteinaceous phosphorus or boron compound or organic compound containing silicon | 144.71 | .....The oxygen is part of a - C(=O)O- group  |
| 137.5 | .....With natural resin or derivative  | 144.72 | .....Dihydric or polyhydric alcohol   |
| 137.6 | .....With nonproteinaceous organic compound containing sulfur or nitrogen                      |        |   |

145.1	...Starch or derivative	148.5	...With nonproteinaceous organic compound containing oxygen except wax
145.2	....With natural resin or derivative	148.51	....The oxygen is part of a - C(=O)O- group
145.3	....With lanolin, lecithin, fat, or fatty oil	148.52	....Dihydric or polyhydric alcohol
145.4	....With nonproteinaceous organic compound containing sulfur or nitrogen	149.1	..With terpene or derivative
145.5	....With nonproteinaceous organic compound containing oxygen except wax	150.1	..With nonproteinaceous hetero ring compound
146.1	...Sugar or hydrogenated sugar (e.g., sorbitol, maltitol, xylitol, etc.)	150.2	...With nonproteinaceous organic compound containing sulfur or nitrogen
146.2	....With natural resin or derivative	150.3	...With nonproteinaceous organic compound containing oxygen except wax
146.3	....With lanolin, lecithin, fat, or fatty oil	151.1	..With nonproteinaceous phosphorus compound
146.4	....With nonproteinaceous organic compound containing sulfur or nitrogen	151.2	...With nonproteinaceous organic compound containing oxygen
146.5	....With nonproteinaceous organic compound containing oxygen except wax	152.1	..With nonproteinaceous boron compound
146.51	.....The oxygen is part of a - C(=O)O- group	153.1	..With organic compound containing silicon
147.1	..With natural resin or derivative	154.11	..With nonproteinaceous organic compound containing sulfur
147.2	...With nonproteinaceous phosphorus or boron compound or organic compound containing silicon	154.2	...Carbon double bonded directly to the sulfur
147.3	...With lanolin, fat, or fatty oil	154.3	...Nitrogen and sulfur in the same compound
147.4	...With terpene or derivative	154.4	...Sulfonated compound of indeterminate structure
147.5	...With nonproteinaceous organic compound containing sulfur or nitrogen	155.1	..With nonproteinaceous organic compound containing nitrogen
147.6	...With nonproteinaceous organic compound containing oxygen except wax	155.2	...Nitrogen and oxygen in the same compound
147.61	....The oxygen is part of a - C(=O)O- group	155.21	....Nitrogen single bonded directly to carbon of a - C(=O)- group
148.1	..With lanolin, lecithin, fat, or fatty oil	155.22	....Alkanol amine or salt thereof
148.2	...With nonproteinaceous phosphorus or boron compound or organic compound containing silicon	155.23	....Tertiary amine oxide
148.3	...With terpene or derivative	156.1	..With nonproteinaceous organic compound containing oxygen except wax
148.4	...With nonproteinaceous organic compound containing sulfur or nitrogen	156.2	...The oxygen is part of a - C(=O)- group
		156.21	....Carbon bonded directly to the single bonded oxygen of the - C(=O)O- group
		156.22	....Plural -C(=O)O- groups
		156.23	....Metal salt
		156.24	....Metal salt of higher fatty acid

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|--------|---|--------|--|
| 156.25 | ....With additional nonproteinaceous organic compound containing oxygen                               | 162.5  | ..With lignocellulosic material (i.e., mixture of a lignocellulosic material and a carbohydrate material which is other than a lignocellulosic material or a component thereof)  |
| 156.3  | ...Carbonyl group containing  |        |  |
| 156.31 | ....With additional nonproteinaceous organic compound containing oxygen                               | 162.51 | ...The carbohydrate is starch  |
| 156.4  | ...Ether except dialkylene or polyalkylene glycol   | 162.6  | ..With cellulose xanthate or viscose (i.e., mixture of cellulose xanthate or viscose and a carbohydrate material which is other than cellulose xanthate or viscose)  |
| 156.5  | ...Dihydric or polyhydric alcohol   |        |  |
| 156.51 | ....Glycerol  | 162.7  | ..With cellulose ester or salt thereof (i.e., mixture of (A) a cellulose ester or salt thereof and (B) a carbohydrate material which is other than cellulose ester or salt of the same acid as in (A) differing only in the degree of esterification)                |
| 157.1  | ..With bituminous or tarry residue, hydrocarbon, or naturally occurring wax                           | 162.71 | ...The carbohydrate is a cellulose material  |
| 157.2  | ..With element or inorganic compound except water   | 162.72 | ....Diverse cellulose ester or salt thereof (i.e., mixture of two or more cellulose esters or salts of diverse acids or mixture of two or more cellulose mixed esters or salts of different diverse acids groups)  |
| 157.3  | ...Mineral acid (e.g., sulfuric, nitric, etc.)  | 162.8  | ..With cellulose ether or salt thereof (i.e., mixture of (A) a cellulose ether or salt thereof and (B) a carbohydrate material which is other than cellulose ether or salt of the same etherifying radical as in (A) differing only in the degree of etherification) |
| 157.4  | ...Ammonium hydroxide (i.e., ammonium hydrate, aqua ammonia, ammonia solution) or ammonia             | 162.81 | ...The carbohydrate is starch or derivative  |
| 157.5  | ...Elemental sulfur or inorganic sulfur compound  | 162.82 | ...The carbohydrate is diverse cellulose ether or salt thereof (i.e., mixture of two or more cellulose ethers or salts of diverse etherifying radicals or mixture of two or more cellulose mixed ethers or salts of different diverse etherifying radical groups)    |
| 157.51 | ....Aluminum sulfate (e.g., alum, pearl alum, cake alum, etc.)  |        |  |
| 157.6  | ...Elemental halogen, inorganic halogen compound, or inorganic nitrate compound                       |        |  |
| 157.7  | ...Elemental silicon or inorganic silicon compound  |        |  |
| 157.71 | ....Clay  |        |  |
| 157.8  | ...Metal oxide  |        |  |
| 157.9  | ...Alkali or alkaline earth metal hydroxide (e.g., caustic soda, caustic alkali, caustic lime, etc.)  |        |  |
| 158.1  | ..Albumin or derivative   |        |  |
| 159.1  | ..Casein or derivative  |        |  |
| 160.1  | ..Gelatin or collagen or derivative (e.g., glue, etc.)  |        |  |
| 161.1  | ..Prolamine or derivative (e.g., zein, etc.)  |        |  |
| 162.1  | ..Carbohydrate or derivative containing   |        |  |
| 162.2  | ..Aminopolysaccharide (e.g., heparin, glycosamine, mucopolysaccharide, chitin, hyaluronic acid, etc.) |        |  |

- 162.9 ...With cellulosic material (i.e., mixture of a cellulosic material and a carbohydrate material which is other than a cellulosic material)
- 163.01 ...Cellulosic material
- 164.01 ...Lignocellulosic material (e.g., wood, bark, straw, bagasse, wood pulp, etc.)
- 164.1 ....Cork
- 164.11 .....With fat, fatty oil, higher fatty acid or derivative
- 164.12 .....With bituminous or tarry residue
- 164.2 ....Peat
- 164.3 ....With organic compound containing nitrogen
- 164.4 ....With organic compound containing chalcogen
- 164.41 .....Natural resin or derivative
- 164.42 .....With hydrocarbon (e.g., petroleum fraction, paraffin, olefin, acetylene, etc.)
- 164.43 .....With fat, fatty oil, higher fatty acid or derivative
- 164.44 .....Fat, fatty oil, higher fatty acid or derivative
- 164.5 ....With element or inorganic compound except water
- 164.51 .....Elemental silicon or inorganic silicon compound
- 164.52 .....Asbestos
- 164.53 .....Elemental sulfur or inorganic sulfur compound
- 164.6 ....With bituminous or tarry residue
- 165.01 ...Chemically modified lignocellulosic material of indeterminate structure (e.g., hydrolyzed, etherified, etc.)
- 166.01 ...Cellulose xanthate or viscose
- 166.1 ....With organic compound containing silicon
- 166.2 ....With phosphorus compound
- 166.3 ....With organic compound containing sulfur
- 166.31 .....Carbon double bonded directly to the sulfur
- 166.4 ....With organic compound containing nitrogen
- 166.41 .....The nitrogen is a member of a hetero ring
- 166.42 .....Oxygen and nitrogen in the same compound (e.g., ammonium alkyl sulfonate, tertiary amine oxide, triethanolamine, etc.)
- 166.43 .....The oxygen is part of a -C(=O)- group (e.g., amide, urea, etc.)
- 166.5 ....With organic compound containing oxygen
- 166.51 .....Natural resin or organic -C(=O)O- compound (e.g., rosin, tall oil, tallow, castor oil, carboxylic acid, etc.)
- 166.52 .....Dihydric or polyhydric alcohol or ether derivative thereof
- 166.6 ....With organic compound containing halogen
- 166.7 ....With bituminous or tarry residue or hydrocarbon (e.g., petroleum fraction, paraffin, olefin, acetylene, etc.)
- 166.8 ....With element or inorganic compound except water
- 166.81 .....Elemental titanium or inorganic titanium compound
- 166.82 .....Elemental silicon or inorganic silicon compound
- 167.01 ...Cuprammonium cellulose
- 168.01 ...Cellulose ester or salt thereof
- 169.01 ...Cellulose nitrate
- 169.1 .....With nitrogen hetero ring compound (e.g., succinimide, caprolactam, piperazine, etc.)
- 169.11 .....The hetero ring is part of a polycyclic ring system (e.g., guanine, phthalimide, etc.)
- 169.12 .....With chalcogen hetero ring compound (e.g., lactone, maleic anhydride, furan, etc.)
- 169.13 .....Plural oxygens in the hetero ring (e.g., dioxane, dioxene, etc.)
- 169.14 .....With phosphorus compound
- 169.15 .....Trialkyl or triaryl phosphate or mixed esters thereof (e.g., tributyl phosphate, triphenyl phosphate, dicresyl lauryl ortho phosphate, etc.)
- 169.16 .....With boron compound
- 169.17 .....With organic compound containing silicon

- 169.18 .....With natural resin or derivative
- 169.19 .....Chemically modified natural resin of indeterminate structure (e.g., oxidized, polymerized, hydrogenized, esterified, etc.)
- 169.2 .....With additional diverse natural resin or derivative
- 169.21 .....With naturally occurring wax (e.g., mineral, ceresin, etc.)
- 169.22 .....With fatty oil or derivative (e.g., coconut, cottonseed, soybean, fish, sperm oil, etc.)
- 169.23 .....With carboxylic acid, ester, or salt thereof
- 169.24 .....With organic compound containing oxygen
- 169.25 .....With chemically modified lanolin, fat, or fatty oil (e.g., blown, polymerized, hydrogenized, esterified, etc.)
- 169.26 .....With lanolin, fat, or fatty oil, (e.g., lard, tallow, castor oil, linseed oil, etc.)
- 169.27 .....With organic compound containing oxygen
- 169.28 .....With terpene or derivative (e.g., pine oil, terpineol, borneol, etc.)
- 169.29 .....Camphor
- 169.3 .....With carboxylic acid, ester, or salt thereof
- 169.31 .....With organic compound containing nitrogen, halogen, or chalcogen
- 169.32 .....With compound of indeterminate structures prepared by reacting an organic  $-C(=O)O-$  compound
- 169.33 .....With organic  $-C(=O)O-$  group containing compound except wax (e.g., fatty acid, dicarboxylic acid, etc.)
- 169.34 .....Carbon bonded directly to the single bonded oxygen of the  $-C(=O)O-$  group (e.g., fatty acid ester, acid anhydride, etc.)
- 169.35 .....Plural  $-C(=O)O-$  groups attached directly or indirectly to each other by nonionic bonding
- 169.36 .....Carbocyclic ring attached directly or indirectly to the  $-C(=O)O-$  groups
- 169.37 .....Exactly two  $-C(=O)O-$  groups attached directly to the carbocyclic ring by nonionic bonding
- 169.38 .....Oxygen, other than in  $-C(=O)O-$  group, attached indirectly to the  $-C(=O)O-$  groups by nonionic bonding
- 169.39 .....Esterified dihydric or polyhydric alcohol
- 169.4 .....Nitrogen or oxygen bonded directly to the carbon of the  $-C(=O)O-$  group (e.g., diethyl carbonate, dodecyl phenylcarbamate, octyl carbanilate, urethane, etc.)
- 169.41 .....Oxygen attached indirectly to the  $-C(=O)O-$  group by nonionic bonding
- 169.42 .....Benzene ring attached directly or indirectly to the  $-C(=O)O-$  group by nonionic bonding
- 169.43 .....With organic compound containing oxygen (e.g., alcohol, ketone, additional carboxylic acid esters, etc.)
- 169.44 .....Metal or Nitrogen salt
- 169.45 .....With organic compound containing sulfur
- 169.46 .....With organic compound containing nitrogen
- 169.47 .....The nitrogen is single bonded directly to the carbon of a  $-C(=O)-$  group
- 169.48 .....With organic  $-C(=O)-$  group containing compound (e.g., aldehyde, ketone, etc.)
- 169.49 .....With ether except dialkylene or polyalkylene glycol
- 169.5 .....With organic  $-C(-OH)-$  group containing compound, where the H of the  $-OH$  group can be replaced by a metal (e.g., alkanol, phenol, polyol, phenolate, etc.)
- 169.51 .....With organic  $-C(-OH)-$  group containing compound, where the H of the  $-OH$  group can be replaced by a metal (e.g., alkanol, phenol, polyol, alkanolate, dialkylene glycol, etc.)

- 169.52 .....Halogen containing or with organic halogen compound
- 169.53 .....With organic compound containing halogen
- 169.54 .....With bituminous or tarry residue, hydrocarbon, or naturally occurring wax
- 169.55 .....With elemental silicon or inorganic silicon compound
- 169.56 .....With elemental metal or alloy or metal compound
- 169.57 .....With elemental carbon (e.g., graphite, coal, etc.)
- 170.1 ....With nitrogen hetero ring compound
- 170.11 .....Chalcogen hetero atom
- 170.12 ....With chalcogen hetero ring compound
- 170.13 .....Three-membered hetero ring (e.g., epichlorohydrin, epoxide, etc.)
- 170.14 .....Plural chalcogens in the hetero ring
- 170.15 ....With phosphorus compound
- 170.16 .....Trialkyl or triaryl phosphate or mixed esters thereof (e.g., tributyl phosphate, triphenyl phosphate, dicresyl lauryl ortho phosphate, etc.)
- 170.17 .....With organic compound containing nitrogen
- 170.18 .....With carboxylic acid, ester, or salt thereof
- 170.19 ....With boron compound
- 170.2 ....With organic compound containing silicon
- 170.21 ....With natural resin or derivative
- 170.22 ....With chemically modified lanolin, fat, or fatty oil (e.g., blown, polymerized, hydrogenized, esterified, etc.)
- 170.23 ....With lanolin, fat, or fatty oil (e.g., lard, tallow, castor oil, linseed oil, etc.)
- 170.24 .....With organic compound containing oxygen
- 170.25 ....With terpene or derivative (e.g., camphor, pine oil, terpineol, borneol, etc.)
- 170.26 ....With organic  $-C(=O)O-$  group containing compound except wax (e.g., fatty acid, dicarboxylic acid, etc.)
- 170.27 .....Carbon bonded directly to the single bonded oxygen of the  $-C(=O)O-$  group (e.g., fatty acid ester, acid anhydride, etc.)
- 170.28 .....Nitrogen, halogen, or chalcogen bonded directly to the carbon of the  $-C(=O)O-$  group (e.g., alkylchloro carbonate, diethyl carbonate, octyl carbanilate, dodecyl phenylcarbamate, urethane, etc.)
- 170.29 .....Plural  $-C(=O)O-$  groups attached directly or indirectly to each other by nonionic bonding
- 170.3 .....Benzene ring attached directly or indirectly to the  $-C(=O)O-$  groups by nonionic bonding
- 170.31 .....Exactly two  $-C(=O)O-$  groups attached directly to the same benzene ring by nonionic bonding
- 170.32 .....With organic compound containing oxygen (e.g., alcohol, ketone, additional carboxylic acid ester, etc.)
- 170.33 .....Cycloaliphatic ring attached directly or indirectly to the  $-C(=O)O-$  groups by nonionic bonding
- 170.34 .....Esterified dihydric or polyhydric alcohol
- 170.35 .....The polyhydric alcohol is glycerol (e.g., triacetin, tripropionin, glyceryl dipropionate, glyceryl dipropionate monoacetate, etc.)
- 170.36 .....Nitrogen, sulfur, halogen, or oxygen other than in  $-C(=O)O-$  group attached indirectly to the  $-C(=O)O-$  groups by nonionic bonding
- 170.37 .....Nitrogen attached indirectly to the  $-C(=O)O-$  group by nonionic bonding
- 170.38 .....Oxygen attached directly to the  $-C(=O)O-$  group by nonionic bonding

170.39	.....Benzene ring attached directly or indirectly to the -C(=O)- group by nonionic bonding	171.1	....Cellulose acetate
170.4	.....With organic compound containing oxygen (e.g., alcohol, ketone, additional carboxylic acid ester, etc.)	172.1	...Cellulose ether or salt thereof
170.41	.....Metal or nitrogen salt	173.01	....With nitrogen hetero ring compound
170.42	....With organic compound containing nitrogen	174.1	....With chalcogen hetero ring compound
170.43	.....Chalcogen and nitrogen in the same compound	174.2	.....The chalcogen in the ring is sulfur
170.44	.....The nitrogen is single bonded directly to carbon of a -C(X)- group (X is chalcogen)	175.1	....With phosphorus compound
170.45	.....The nitrogen is single bonded directly to sulfur of a -S(=O)(=O)- group (i.e., sulfonamide)	176.1	....With boron compound
170.46	....With organic compound containing sulfur	177.1	....With organic compound containing silicon
170.47	....With organic -C(=O)- group containing compound (e.g., aldehyde, ketone, etc.)	178.1	....With natural resin or derivative
170.48	.....Carbocyclic ring containing	179.1	....With lanolin, fat, or fatty oil or derivative thereof (e.g., lard, tallow, castor oil, linseed oil, etc.)
170.49	.....With organic -C(-OH)- group containing compound, where the H of the -OH group can be replaced by a metal (e.g., alkanol, phenol, polyol, phenolate, etc.)	180.1	....With terpene or derivative (e.g., camphor, pine oil, terpineol, borneol, etc.)
170.5	....With ether except dialkylene or polyalkylene glycol	181.1	....With organic -C(=O)O- group containing compound except wax (e.g., fatty acid, dicarboxylic acid, etc.)
170.51	....With organic -C(-OH)- group containing compound, where the H of the -OH group can be replaced by a metal (e.g., alkanolate, alkanol, polyol, dialkylene glycol, etc.)	182.1	.....Carbon bonded directly to the single bonded oxygen of the -C(=O)O- group (e.g., fatty acid ester, acid anhydride, etc.)
170.52	.....Carbocyclic ring containing	183.1	.....Nitrogen or chalcogen bonded directly to the carbon of the -C(=O)O- group (e.g., diethyl carbonate, dodecyl phenylcarbamate, octyl carbanilate, urethane, etc.)
170.53	.....With organic compound containing halogen	184.1	.....Plural -C(=O)O- groups attached directly or indirectly to each other by nonionic bonding
170.54	.....Three or more halogens containing or with additional organic compound containing halogen	184.2	.....Exactly two -C(=O)O- groups attached directly to the same benzene ring by nonionic bonding
170.55	....With organic compound containing halogen	184.3	.....Esterified dihydric or polyhydric alcohol
170.56	....With bituminous or tarry residue, hydrocarbon, or naturally occurring wax	185.1	.....Nitrogen attached indirectly to the -C(=O)O- group by nonionic bonding
170.57	....With elemental silicon or inorganic silicon compound	186.1	.....Oxygen attached indirectly to the -C(=O)O- group by nonionic bonding
170.58	....With elemental metal or alloy or metal compound		



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| 186.2  | .....Benzene ring attached directly or indirectly to the -C(=O)O- group by nonionic bonding  | 200.4  | .....Alkanol amine or salt thereof (e.g., monoethanolamine formate, monoethanolamine hydrochloride, triethanolamine, etc.)    |
| 187.1  | .....With organic compound containing oxygen (e.g., alcohol, ketone, carboxylic acid ester, etc.)  | 201.1  | ...With organic compound containing halogen   |
| 188.1  | .....With organic compound containing halogen  | 202.1  | ...With organic compound containing sulfur  |
| 189.1  | .....Metal or nitrogen salt  | 203.1  | ...With organic compound containing oxygen  |
| 190.1  | ....With organic compound containing nitrogen  | 203.2  | ....Dihydric or polyhydric alcohol or ether derivative thereof  |
| 191.1  | ....With organic compound containing sulfur  | 203.3  | ....Natural resin or organic - C(=O)O- compound (e.g., rosin, tall oil, tallow, castor oil, carboxylic acid, ester wax, etc.) |
| 192.1  | ....With organic -C(=O)- group containing compound (e.g., aldehyde, ketone, etc.)  | 204.01 | ...With element or inorganic compound except water  |
| 193.1  | ....With ether except dialkylene or polyalkylene glycol  | 204.2  | ....Elemental titanium or inorganic titanium compound   |
| 194.1  | ....With organic -C(-OH)- group containing compound, where the H of the -OH (hydroxyl) group can be replaced by a metal (e.g., alkanol, phenol, alkanolate, phenolate, etc.) | 204.3  | ....Elemental silicon or inorganic silicon compound   |
| 194.2  | .....Plural hydroxyl groups containing (e.g., glycol, glycerol, etc.)  | 205.01 | ..Carbohydrate gum, dextrin or derivative (e.g., arabic, tragacanth, guar, karaya, agar agar, algin, irish moss, etc.)        |
| 194.3  | .....With organic compound containing halogen  | 205.1  | ...With hetero ring compound except carbohydrate  |
| 195.1  | ....With organic compound containing halogen   | 205.2  | ...With phosphorus compound   |
| 196.1  | ....With bituminous or tarry residue, hydrocarbon, or naturally occurring wax  | 205.3  | ...With boron compound  |
| 197.01 | ....With elemental silicon or inorganic silicon compound   | 205.31 | ....With organic compound containing oxygen   |
| 198.1  | ....With elemental metal or alloy or metal compound  | 205.4  | ...With natural resin or derivative   |
| 199.1  | ....With elemental carbon (e.g., graphite, coal, carbon black, etc.)   | 205.5  | ...With terpene or derivative, lanolin, fat, or fatty oil   |
| 200.1  | ...With organic compound containing nitrogen (e.g., amine, quaternary ammonium halide, etc.)   | 205.6  | ...With organic compound containing sulfur or nitrogen  |
| 200.2  | ....The nitrogen is part of a hetero ring  | 205.7  | ...With organic compound containing oxygen except wax   |
| 200.3  | ....Oxygen and nitrogen in the same compound (e.g., amide, ammonium alkyl sulfonate, urea, tertiary amine oxide, etc.)   | 205.71 | ....The oxygen is part of a - C(=O)O- group   |
|        |  | 205.72 | ....Dihydric or polyhydric alcohol  |
|        |  | 205.8  | ...With bituminous or tarry residue, hydrocarbon, or naturally occurring wax  |
|        |  | 205.9  | ...With element or inorganic compound except water  |
|        |  | 206.1  | ..Starch or derivative  |
|        |  | 207.1  | ...Starch ester   |

207.2	....With hetero ring compound except carbohydrate	217.4	..With natural resin or derivative
207.3	....With phosphorus compound or boron compound or organic compound containing silicon	217.5	..With hetero ring compound except carbohydrate
207.4	....With organic compound containing sulfur or nitrogen	217.6	..With organic compound containing nitrogen
207.5	....With organic compound containing oxygen except wax	217.7	..With organic compound containing oxygen except wax
208.1	...Oxidized starch	217.8	..With bituminous or tarry residue, hydrocarbon, or naturally occurring wax
208.2	....With hetero ring compound except carbohydrate	217.9	..With element or inorganic compound except water
208.3	....With phosphorus compound or boron compound or organic compound containing silicon	218	..Natural resin or derivative containing
208.4	....With organic compound containing sulfur or nitrogen	219	..With fat, fatty oil, fatty oil acid or salt thereof
208.5	....With organic compound containing oxygen except wax	220	...Fatty oil
209.1	...With hetero ring compound except carbohydrate	221	....Two or more kinds of fatty oil
210.1	...With phosphorus compound	222	....Drying oil
211.1	...With boron compound	223	....With sulfurizing or sulfonating agent
212.1	...With organic compound containing silicon	224	.....With wax
213.1	...With organic compound containing sulfur	225	.....With bituminous material or tarry residue
214.1	...With organic compound containing nitrogen	226	.....With terpene or derivative
214.2	....Nitrogen and oxygen in the same compound	227	.....With hydrocarbon
215.1	...With organic compound containing oxygen except wax	228	.....With filler, dye or pigment
215.2	....The oxygen is part of a -C(=O)O- group	229	...With wax, bituminous material or tarry residue
215.3	.....Carbon bonded directly to the single bonded oxygen of the -C(=O)O- group	230	..With wax
215.4	.....Plural -C(=O)O- groups	231	...Ester type wax
215.5	....Dihydric or polyhydric alcohol	232	..With bituminous material or tarry residue
216.1	...With bituminous or tarry residue, hydrocarbon, or naturally occurring wax	233	...With sulfurizing or sulfonating agent
217.01	...With element or inorganic compound except water	234	...With hydrocarbon
217.1	....Elemental halogen or halogen containing	235	...With filler, dye or pigment
217.2	....Alkali or alkaline earth metal hydroxide (e.g., caustic soda, caustic alkali, caustic lime, etc.)	236	..With solvent or dispersing medium
217.3	....Elemental silicon or silicon containing	237	...Alcohol containing
		238	...Water containing
		239	...Hydrocarbon containing
		240	..With flux
		241	..With filler, dye or pigment
		242	...Fibrous
		243	..Fat, fatty oil, fatty oil acid or salt thereof containing
		244	..Fatty oil
		245	...With wax
		246	...With bituminous material or tarry residue
		247	....With sulfurizing or sulfonating agent

248	....With filler, dye or pigment	284.1	..Phosphorus containing
249	...With sulfurizing or sulfonating agent	284.2	..Halogen containing
250	...Two or more kinds oil	284.3	..Metal compound containing
251	....With filler, dye or pigment	284.4	..Nitrogen containing
252	...Drying oil	285	..Hydrocarbon containing
253	....With filler, dye or pigment	286.1	..Inorganic materials only containing at least one metal atom
254	.....Zinc compound	286.2	..Containing two or more diverse metal atoms in a single compound
255	.....Lithopone	286.3	..Fe or Co containing
256	.....Lead compound	286.4	..Group IV metal atom (Ti, Zr, Hf, Ge, Sn, or Pb) containing
257	.....White lead	286.5	..Aluminum containing
258	.....Red lead	286.6	..Group II metal atom (Be, Mg, Sr, Ca, Ba, Ra, Zn, Cd, or Hg) containing
259	.....Iron compound	286.7	..Group I metal atom (Li, Na, K, Rb, Cs, Fr, Cu, Ag, or Au) containing
260	.....Calcium compound	286.8	..Inorganic materials only
261	.....Carbonaceous	287.1	..Silicon containing other than solely as silicon dioxide or as part of an aluminum- containing compound
262	.....Pigment treatment	287.11	..N-containing Si compound
263	....With preserving or stabilizing agent	287.12	..-OH bonded directly to Si atom
264	....With drier	287.13	..C bonded directly to Si atom
265	....With hydrocarbon	287.14	...H or alkyl directly bonded to Si
266	...With filler, dye or pigment	287.15	...C radical bonded to Si is unsaturated
267	...With hydrocarbon	287.16	..Si-O-C bonded compound
268	..With wax	287.17	..Aluminum compound containing
269	..With bituminous material or tarry residue	287.18	..Heavy metal compound containing
270	..Wax containing	287.19	..Group IVA or IVB (Ti, Zr, Hf, Ge, Sn, Pb)
271	..With solvent or dispersing medium	287.2	..Heterocyclic (only N, O, S, Se, Te)
272	..With filler, dye or pigment	287.21	..Two hetero ring atoms
273.1	..Bituminous material or tarry residue	287.22	..Epoxy ring containing
274	..With sulfurizing or sulfonating agent	287.23	..O-containing organic compound
275	...With filler, dye or pigment	287.24	..Carbonyl group containing
276	..Rock asphalt	287.25	...N containing
277	..Bituminous emulsion	287.26	..Hydroxy group containing or alcoholate
278	..With solvent or dispersing medium	287.27	..Halogen containing
279	..With flux	287.28	..Organic halide
280	...With filler, dye or pigment	287.29	..Phosphorus or nitrogen containing
281.1	..With filler, dye or pigment	287.3	..Nitrogen containing
282	...Fibrous	287.32	..Sulfur containing
283	...Water containing	287.34	..Silicon dioxide containing
284	...Coal tar or pitch containing	287.35	..Miscellaneous
284.01	...Specified particle or screen- mesh size stated		
284.02	...Heavy metal or aluminum containing		
284.03	...Alkali or alkaline earth metal containing		
284.04	....Lime, limestone or chalk containing		
284.05	...Elemental carbon containing		
284.06	...Nitrogen containing		

<b>MATERIALS OR INGREDIENTS</b>		430	....Titanium compound containing
400	.Pigment, filler, or aggregate compositions, e.g., stone, shale, pebbles, rock, etc.	431	....Silicon or aluminum compound containing
401	..Composition contains identified material other than water	432	...Lead compound containing, e.g., litharge, etc. (Pb)
402	...Lake containing	433	....Lead chromate containing, e.g., molybdate orange, chrome yellow, etc.
403	...Elemental metal or alloy containing	434	....Silicon containing
404	....Aluminum containing	435	....Silicon containing
405	...Fly ash, coal ash, or bottom ash or derived therefrom	436	...Titanium compound containing (Ti)
406	...Cork, bark, vegetable shell, hull or cob or material derived therefrom	437	....Oxidation of titanium tetrahalide or product
407	...Organic refuse or waste material containing or derived therefrom	438	....Zirconium compound containing (Zr)
408	...Alkali blue pigment containing	439	....Iron, tungsten, molybdenum, or cerium compound containing (Fe, W, Mo, Ce)
409	...Hollow, porous or foam particle containing	440	....Nickel, cobalt, copper, or cadmium compound containing (Ni, Co, Cu, Cd)
410	...Phthalocyanine or derivative containing	441	....Antimony, chromium, arsenic, or tin compound containing (Sb, Cr, As, Sn)
411	....Mixed phthalocyanines or derivatives	442	....Aluminum compound or silicon containing
412	....Special process of milling, grinding, comminuting, plural stage or zone mixing or product	443	....Phosphorus containing
413	....With organic compound	444	....Alkali or alkaline earth metal containing
414	...Ultramarines, e.g., ultramarine green, etc.	445	....Organic material containing
415	...Mica, shell, scale, platelet, or lamellate	446	....Silicon containing
416	....Clay containing or derived therefrom	447	...Organic material containing
417	....Mica containing	448	....Organic nitrogen containing material
418	....Iron or bismuth compound containing (Fe or Bi)	449	...Alkali or alkaline earth metal containing
419	...Zinc compound containing (Zn)	450	...Zirconium compound containing (Zr)
420	....Zinc sulfide containing	451	...Vanadium or praseodymium containing (V, Pr)
421	....Lithopone (zinc sulfide + barium sulfate)	452	...Cadmium compound containing (Cd)
422	....Metal compound other than barium or zinc containing	453	...Chromium compound containing (Cr)
423	....Subsequent treatment or product thereof	454	...Silicon containing
424	....Calcium compound containing	455	...Antimony containing (Sb)
425	....Zinc oxide containing	456	...Iron compound containing (Fe)
426	....Aluminum compound or silicon containing, e.g., clay, etc.	457	...Silicon containing, e.g., slag, turkey umber, Fullers earth, etc.
427	....Sulfur or phosphorus containing	458	...Compound containing carbon triple bonded to nitrogen, e.g., prussian blue, iron blue, etc.
428	....Titanium compound containing		
429	....Organic material containing		

459	....With other metal compound	480	...Cobalt, nickel, or copper compound containing (Co, Ni, or Cu)
460	....Organic material containing	481	...Silicon containing
461	...Alkaline earth metal compound containing, other than glass, e.g., ettringite, gypsum, barium sulfate, anhydrite, etc.	482	....Inorganic silicon compound, e.g., diatomaceous earth, soil, glass, sand, etc., or material derived therefrom
462	....Phosphorus or boron containing	483	.....Aluminum compound containing, e.g., feldspar, mullite, etc.
463	....Carbonate containing	484	.....Special process of milling, grinding, crushing or comminuting or product
464	.....Calcium containing, e.g., calcite, dolomite, chalk, whiting, etc.	485	.....Special process of pelletizing or agglomerating or product
465	.....Organic material or silicon containing	486	.....Clay or material derived therefrom containing
466	....Soil or inorganic silicon compound containing, e.g., granite, chrysotile, asbestos, etc.	487	.....Organic material containing
467	.....Aluminum compound containing, e.g., zeolites, perlite, etc.	488	.....Bleaching treatment or product
468	.....Clay or material derived from clay containing, e.g., bentonite, montmorillonite, etc.	489	.....Glass containing
469	.....Talc, e.g., soapstone, etc.	490	.....Organic silicon material containing
470	.....Calcium silicate, e.g., dicalcium silicate or silicate hydrate, tobermorite, wollastonite, etc.	491	.....Organic material containing
471	....Organic material containing	492	.....Treatment of alkali silicate with mineral acid or product
472	...Elemental carbon containing, e.g., carbon black, etc.	493	...Organic pigment containing
473	....Sulfur containing, treatment therewith or product	494	....Mixed pigments containing
474	....Metal compound containing	495	.....Quinacridone pigment or derivative
475	....Silicon containing	496	....Pigment containing -N=N-group
476	....Organic material containing, e.g., wax, paraffin, etc.	497	....Quinacridone pigment or derivative
477	.....Fat, oil, higher fatty acid or derivative, e.g., tallow, mineral oil, essential oils, salts, amides and esters of fatty acids, soap, etc.	498	....Ring containing atom other than carbon
478	....Oxidation of carbon black or product thereof, e.g., treating of carbon black to increase volatile content or to lower pH, etc.	499	...Organic material containing
479	...Bismuth, vanadium, molybdenum, or tungsten compound containing (Bi, V, Mo, or W)	500	....Rosin, natural resin or derivative, e.g., shellac, dammar, colophony, turpentine, etc.
		501.1	....Carbohydrate, proteinaceous material, gum, or lignin (e.g., pectate alginate, albumin, glue, etc.)
		502	....Wax, paraffin, bituminous material, asphalt, oil shale, tar or pitch containing
		503	....Sulfur or phosphorus containing

504	....Fatty, oil, higher fatty acid or derivative e.g., tallow, mineral oil, essential oils, salts amides and esters of higher fatty acids, soaps, etc. stabilization, etc.)	FOR 104 ...With carbohydrate or derivative (106/126)
505	....Carboxylic acid or derivative, e.g., tannin, etc.	FOR 105 ....Cellulose or derivative (106/127)
506	....Ring containing atom other than carbon	FOR 106 ....Cellulose ether or ester (106/128)
310	.Driers	FOR 107 ....Gum or derivative (106/129)
311	.Vehicles or solvents	FOR 108 ....Starch or derivative (106/130)
312	.Opacifiers for enamels	FOR 109 ...With fat, fatty oil, fatty oil acid or salt thereof (106/131)
313	.Ceramic fluxes	FOR 110 ....Fatty oil (106/132)
819	.Additive materials for inorganic cements which contain a hydraulic settable material	FOR 111 ...With natural resin or derivative (106/133)
820	..Expanding, foaming or porosity producing additive	FOR 112 ...With wax, bituminous material or tarry residue (106/134)
821	..Protein containing additive	FOR 113 ...With solvent or dispersing medium (106/135)
822	..Wax, tallow, oil, natural resin or higher fatty acid or salt, amide, or ester thereof containing additive (e.g., rosin, tall oil, hydrocarbon oil, etc.)	FOR 114 ...With flux or plasticizer (106/136)
823	..Organic material containing additive (e.g., carbohydrate, bituminous material, etc.)	FOR 115 ...With filler, dye or pigment (106/137)
316	.Miscellaneous	FOR 116 ..Casein or derivative (106/138)
		FOR 117 ...With carbohydrate or derivative (106/139)
		FOR 118 ....Cellulose or derivative (106/140)
		FOR 119 ....Cellulose ether or ester (106/141)
		FOR 120 ...With fat, fatty oil, fatty oil acid or salt thereof (106/142)
		FOR 121 ....Fatty oil (106/143)
		FOR 122 ...With natural resin or derivative (106/144)
		FOR 123 ...With wax, bituminous material or tarry residue (106/145)
		FOR 124 ...With solvent or dispersing medium (106/146)
		FOR 125 ...With flux or plasticizer (106/147)
		FOR 126 ...With filler, dye or pigment (106/148)
		FOR 127 ..Prolamine or derivative (106/149)
		FOR 128 ...With carbohydrate or derivative (106/150)
		FOR 129 ....Cellulose or derivative (106/151)
		FOR 130 ...With wax, bituminous or resinous material or tarry residue (106/152)
		FOR 131 ...With flux, solvent or dispersing medium (106/153)
		FOR 132 ..Seed protein or derivative (106/154)

**CROSS-REFERENCE ART COLLECTIONS**

	<b>RELATING TO SUBCLASS 287.1</b>
900	<b>SOIL STABILIZATION</b>
901	<b>LOW MOLECULAR WEIGHT HYDROCARBON POLYMER-CONTAINING MIXTURE</b>

**FOREIGN ART COLLECTIONS**

FOR	<b>CLASS-RELATED FOREIGN DOCUMENTS COATING OR PLASTIC COMPOSITIONS (106/UNNUMBERED SUBCLASS)</b>
FOR 100	.Cellulose liberation liquor containing (106/123.1)
FOR 101	..Tall oil (106/123.2)
FOR 102	.Protein or derivative containing (106/124)
FOR 103	..Gelatine, glue or derivative (106/125)

- FOR 133 ..Feathers, hair or leather (106/155)
- FOR 134 ...With wax, bituminous or resinous material or tarry residue (106/156)
- FOR 135 ..With carbohydrate or derivative (106/157)
- FOR 136 ...Cellulose or derivative (106/158)
- FOR 137 ..With fat, fatty oil, fatty oil acid or salt thereof (106/159)
- FOR 138 ..With wax, bituminous or resinous material or tarry residue (106/160)
- FOR 139 ..With flux, solvent or dispersing medium (106/161)
- FOR 140 .Carbohydrate or derivative containing (106/162)
- FOR 141 ..Cellulose or derivative (106/163.1)
- FOR 142 ...Viscose (106/164)
- FOR 143 ....Spinning solutions (106/165)
- FOR 144 .....With delustering agent (106/166)
- FOR 145 ...Cuprammonium cellulose (106/167)
- FOR 146 ...Regenerated cellulose (106/168)
- FOR 147 ...Cellulose ether or ester (106/169)
- FOR 148 ...Emulsions (106/170)
- FOR 149 ....With fat, fatty oil, fatty oil acid or salt thereof (106/171)
- FOR 150 .....With natural resin or derivative (106/172)
- FOR 151 ....With natural resin or derivative (106/173.1)
- FOR 152 ....With terpene or derivative (106/174)
- FOR 153 .....With ether, ester or alcohol (106/175)
- FOR 154 ....With heterocyclic compound (106/178)
- FOR 155 ....With phosphorus containing compound (106/177)
- FOR 156 ....With carboxylic acid, salt or ester thereof (except wax) (106/178)
- FOR 157 .....Ether group containing (106/179)
- FOR 158 ....Polyhydric alcohol ester (106/180)
- FOR 159 ....Polycarboxylic acid, salt or ester thereof (106/181)
- FOR 160 .....Oxo- or oxy-acid or ester thereof (106/182)
- FOR 161 .....Lower fatty acid or ester thereof (106/183)
- FOR 162 .....With aldehyde or ketone (106/184)
- FOR 163 .....With ether or alcohol (106/185)
- FOR 164 ....With amine or amide (100/186)
- FOR 165 ....With aldehyde or ketone (106/187)
- FOR 166 ....With ether (106/188)
- FOR 167 ....With alcohol or phenol (106/189)
- FOR 168 ....With halogen containing carbon compound (106/190)
- FOR 169 ....With hydrocarbon, wax, bituminous material or tarry residue (106/191)
- FOR 170 ....With delustering agent (106/192)
- FOR 171 ....With metal salt (106/194)
- FOR 172 ....Cellulose nitrate (106/195)
- FOR 173 ....Cellulose acetate (106/196)
- FOR 174 ....Cellulose ether (106/197.1)
- FOR 175 .....Carboxymethyl cellulose (106/197.2)
- FOR 176 ....Processes (106/198)
- FOR 177 ...With fat, fatty oil, fatty oil acid or salt thereof (106/199)
- FOR 178 ...With natural resin or derivative (106/200)
- FOR 179 ...With wax (106/201)
- FOR 180 ...With bituminous material or tarry residue (106/202)
- FOR 181 ...With solvent or dispersing medium (106/203)
- FOR 182 ...With filler, dye or pigment (106/204)
- FOR 183 ...Cork (106/204.1)
- FOR 184 ..Carbohydrate gum (106/205)
- FOR 185 ...With fat, fatty oil, fatty oil acid or salt thereof (106/206)
- FOR 186 ...With wax, bituminous or resinous material or tarry residue (106/207)
- FOR 187 ...With solvent or dispersing medium (106/208)
- FOR 188 ...With filler, dye or pigment (106/209)
- FOR 189 ..Starch containing (106/210)
- FOR 190 ...With fat, fatty oil, fatty oil acid or salt thereof (106/211)

FOR 191 ...With wax, bituminous or  
resinous material or tarry  
residue (106/212)  
FOR 192 ...With solvent or dispersing  
medium (106/213)  
FOR 193 ...With filler, dye or pigment  
(106/214)  
FOR 194 ..With fat, fatty oil, fatty oil  
acid or salt thereof (106/215)  
FOR 195 ..With was, bituminous or  
resinous material or tarry  
residue (106/216)  
FOR 196 ..With filler, dye or pigment  
(106/217)  
FOR 197 ...Carbohydrate, protein, gum, or  
lignin, e.g., pectate  
alginate, albumin, glue, etc.  
(106/501)

**DIGESTS**

DIG 1    **FLY ASH**  
DIG 2    **PERLITE**  
DIG 3    **MICA**  
DIG 4    **BENTONITE**  
DIG 7    **ASPHALT BINDERS IN COATING**  
          **COMPOSITIONS**